

CLAIMS

1. A TGF- β gene expression inhibitor comprising a pyrrole-imidazole polyamide containing: an N-methylpyrrole unit (hereinafter also referred to as Py), an N-methylimidazole unit (hereinafter also referred to as Im) and a γ -aminobutyrate unit, wherein said pyrrole-imidazole polyamide can be folded into a U-shaped conformation at the γ -aminobutyrate unit in a minor groove of a double helix region (hereinafter referred to as target region) which comprises a part or all of the following base sequence from -557 to -536 (SEQ ID NO: 1) in a human transforming growth factor β 1 (hereinafter also referred to as hTGF- β 1) promoter, and a complementary strand thereof:

TAAAGGAGAGCAATTCTTACAG

wherein a Py/Im pair corresponds to a C-G base pair, an Im/Py pair corresponds to a G-C base pair, and a Py/Py pair corresponds to both an A-T base pair and a T-A base pair.

2. The TGF- β gene expression inhibitor according to claim 1, further comprising a β -alanine unit.

3. The TGF- β gene expression inhibitor according to claim 1 or 2, wherein said target region is a double helix region comprising a part or all of the following base sequence from -548 to -537 (SEQ ID NO: 2) in the hTGF- β 1 promoter, and a complementary strand thereof,

GCAATTCTTACA.

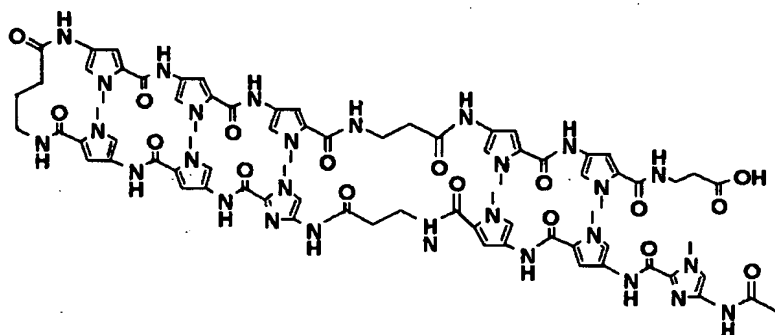
4. The TGF- β gene expression inhibitor according

to claim 3, wherein said target region is a double helix region which comprises a part or all of the following base sequence from -544 to -538 (SEQ ID NO: 3) in the hTGF- β 1 promoter, and a complementary strand thereof,

TTCTTAC.

5. The TGF- β gene expression inhibitor according to claim 1, wherein said pyrrole-imidazole polyamide is represented by the following formula:

[Formula 1]



6. The TGF- β gene expression inhibitor according to claim 5, wherein the terminal carboxyl group of said pyrrole-imidazole polyamide forms an amide.

7. The TGF- β gene expression inhibitor according to claim 6, wherein said amide is an amide formed with N, N-dimethylaminopropylamine.

8. The TGF- β gene expression inhibitor according to any one of claims 5 to 7, wherein said pyrrole-imidazole polyamide forms a conjugate with FITC (fluorescein-isothiocyanate).

9. A pyrrole-imidazole polyamide represented by

the following formula:

[Formula 2]

